

WHAT IS CLAIMED IS:

1        1. A method of servicing telephone calls using an  
2        Internet protocol network and a telephone network the  
3        telephone network including first and second telephone  
4        switches each being coupled to at least one service  
5        control point, the second telephone switch being coupled  
6        to the first telephone switch and the Internet Protocol  
7        network, the method comprising the steps of:

8                pausing processing of a telephone call directed to a  
9        first telephone number at said first telephone switch, in  
10       response to activation of a first trigger set at said  
11       first telephone switch, the first trigger being activated  
12       by a call directed to a telephone number including a  
13       digit string matching at least a portion of said first  
14       telephone number;

15               obtaining a call processing instruction including a  
16       second telephone number corresponding to said second  
17       telephone switch from a service control point;

18               forwarding the call to the second telephone switch  
19       using the second telephone number as a called party  
20       number for purposes of routing said telephone call; and

21               operating the second telephone switch to:

22                        i) replace the second telephone number with the  
23                        first telephone number; and

24                        ii) route the telephone call to the Internet  
25                        Protocol network using the first telephone number as  
26                        the called party number.

1     2.    The method of claim 1, further comprising the step  
2     of:

3                operating the Internet Protocol network to  
4     complete the call to an IP telephony device using said  
5     first telephone number.

1     3.    The method of claim 2, wherein operating the second  
2     telephone switch includes:

3                packetizing voice signals corresponding to the  
4     first telephone call to generate IP packets; and

5                wherein the step of routing the first telephone  
6     call to the Internet Protocol network includes  
7     transmitting the generated IP packets.

1     4.    The method of claim 1, further comprising:

2                pausing processing of said telephone call, in  
3     response to activation of a second trigger set at said  
4     second telephone switch which is responsive to at least a  
5     portion of said first telephone number; and

6                operating the second telephone switch to contact a  
7     service control point for call processing instructions in  
8     response to activation of said second trigger prior to  
9     routing the first telephone call to the Internet Protocol  
10    network.

1     5.    The method of claim 4, wherein the first trigger set  
2     at said first telephone switch is a line number  
3     portability trigger.

1 6. The method of claim 5, wherein the second trigger  
2 set at said second telephone switch is a terminating  
3 attempt trigger.

1 7. The method of claim 6, wherein the first telephone  
2 number corresponds to a called party, the method further  
3 comprising the steps of:

4 operating the service control point to provide  
5 at least a portion of an advanced intelligent network  
6 service subscribed to by the called party prior to  
7 operating the second telephone switch to route the first  
8 telephone call to the Internet Protocol network.

1 8. The method of claim 7, wherein the advanced  
2 intelligent network service subscribed to by the called  
3 party is a call screening service.

1 9. The method of claim 7, wherein the advanced  
2 intelligent network service subscribed to by the called  
3 party is a Centrex service.

1 10. A method of servicing a call originating from a  
2 first telephone device coupled to an Internet Protocol  
3 based network, the first telephone device using Internet  
4 Protocol packets and being used by a telephone service  
5 subscriber with whom a first telephone number is  
6 associated, the call being directed to a second telephone  
7 device coupled to a telephone switch included in a public  
8 switched telephone network, a second telephone number

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9 being associated with the second telephone device, the  
10 method comprising the steps of:

11 setting a trigger at a telephone switch which  
12 interconnects the Internet Protocol based network and  
13 public switched telephone network, said switch at which  
14 the trigger is set being said telephone switch or a  
15 different telephone switch, the trigger being activated  
16 in response to a telephone call including the first  
17 telephone number in a field included in said telephone  
18 call;

19 in response to the trigger being activated by said  
20 telephone call, contacting a service control point for  
21 call processing instructions; and

22 operating the service control point to control the  
23 telephone switch where said first trigger is set to route  
24 the call using the second telephone number as the called  
25 party telephone number and to send a billing signal to  
26 another telephone switch included in the public switched  
27 telephone network to bill the first telephone service  
28 subscriber for the telephone call.

1 11. The method of claim 10, further comprising:

2 prior to the first trigger being activated by said  
3 telephone call, placing the first telephone number in a  
4 called party field of said telephone call and placing the  
5 second telephone number in a space field of said  
6 telephone call.

1 12. The method of claim 11, wherein the step of  
2 operating the service control point to control the switch  
3 to route the call using the second telephone number as  
4 the called party telephone number includes:

5 extracting the second telephone number from the  
6 spare field of a message received from said first  
7 telephone switch following activation of said first  
8 trigger; and

9 supplying the second telephone number to the  
10 first telephone switch as the called party telephone  
11 number.

1 13. The method of claim 12, wherein said spare field is  
2 an alternate billing field.

1 14. The method of claim 10, wherein the first trigger is  
2 a specific digit string trigger.

1 15. The method of claim 10, wherein the step of  
2 operating the service control point further includes:  
3 comparing the telephone number included in a called  
4 party field to telephone numbers in a database which  
5 lists telephone numbers corresponding to the Internet  
6 Protocol network.

1 16. The method of claim 15, wherein the step of  
2 operating the service control point further includes:  
3 controlling the telephone switch to complete  
4 the call to the telephone number included in the called

party field when it is determined by the comparing step that the telephone number included in the called party field is not included in said database.

17. A communications system comprising:

an Internet Protocol network including an Internet Protocol telephony device, a first telephone number being associated with said telephony device to be used for routing telephone calls to said telephony device; and

a public switched telephone network, the public switched telephone network including:

i) a first telephone switch to which calls from other telephone switches in the public switched telephone number directed to said first telephone number are routed, a second trigger being set at said first telephone switch which is responsive to calls directed to a telephone number having at least a portion of which is the same as the first telephone;

ii) a second telephone switch coupled to the first telephone switch and to the Internet Protocol network, the second telephone switch including circuitry for packetizing calls and for routing calls to the Internet Protocol network;

iii) a service control point coupled to said first telephone switch, the service control point including logic for controlling the first telephone switch to forward calls directed to said first telephone number to the second telephone switch

26 after activation of said trigger set at said first  
27 telephone switch.

1 18. The communications system of claim 17,  
2 wherein the second telephone switch includes a  
3 second trigger responsive to said first telephone number  
4 and  
5 means for pausing processing of a call  
6 activating said second trigger as part of an advanced  
7 intelligent network service.

1 19. The communications system of claim 18, wherein the  
2 first and second triggers are advanced intelligent  
3 network triggers.

1 20. The communications system of claim 19, wherein the  
2 first trigger is a line number portability trigger.

1 21. The communications system of claim 20, wherein the  
2 second trigger is a terminating attempt trigger set to be  
3 activated by calls directed to the first telephone  
4 number.

1 22. A communications system comprising:  
2 an Internet Protocol network including an Internet  
3 Protocol telephony device, a first telephone number being  
4 associated with said telephony device; and  
5 a public switched telephone network, the public  
6 switched telephone network including:

7 i) a first telephone switch coupled to the  
8 Internet Protocol network, a trigger being set at  
9 said first telephone switch which is responsive to  
10 at least a portion of said first telephone number;  
11 ii) a service control point coupled to said  
12 first telephone switch, the service control point  
13 including logic for controlling the first telephone  
14 switch to cause, in response to activation of said  
15 trigger, a telephone call placed from said telephony  
16 device to be billed by a device in the public  
17 switched telephone network to a telephone service  
18 subscriber to whom said telephony device  
19 corresponds.

1 23. The communications system of claim 22,  
2 wherein the trigger set at the first telephone  
3 switch is a specific digit string trigger; and  
4 wherein the public switched telephone network  
5 further includes a database of telephone numbers  
6 corresponding to the Internet Protocol devices from which  
7 telephone calls can originate; and  
8 wherein the service control point includes  
9 logic for accessing said database of telephone numbers to  
10 determine if a telephone number which activated said  
11 trigger corresponds to an Internet Protocol device from  
12 which telephone calls can originate.

1 24. The communications system of claim 23,



2            wherein the first telephone number is included  
3        in a called party field of a telephone call, received by  
4        said first telephone switch, that is initiated by said  
5        Internet Protocol telephony device and the actual called  
6        party telephone number is included in a spare field of  
7        the telephone call; and

8            wherein the service control point includes  
9        logic for controlling the first telephone switch to route  
10       the call using the actual called party telephone number  
11       included in the spare field of the telephone call.

1       25. The communications system of claim 24, further  
2       comprising:

3            a second telephone switch coupled to said first  
4        telephone switch, the second telephone switch including  
5        control logic for billing a call to the first subscriber  
6        in response to billing information received from the  
7        first telephone switch.